JOINT STAFF
J6 SPECTRUM BRANCH

LtCol Wendy Goyette

Agenda

- Joint Force 2020
- Importance of E3/Spectrum Supportability
- Spectrum “Battlefield”
- JS J6 Spectrum Mission
- Role of MCEB FP
- E3/Spectrum Supportability Mission Success

Joint Force 2020

Goal of Chairman, Joint Chiefs of Staff

- JFQ 72, 1st Quarter 2014

- **Forecast capabilities**
- **Maximize ability to nurture promising technologies**
- **Rapidly and efficiently build out new technologies**
- **Interoperability is fundamental**
- **Adapt to be increasingly agile**

Importance of E3/Spectrum Supportability

Ensure technology

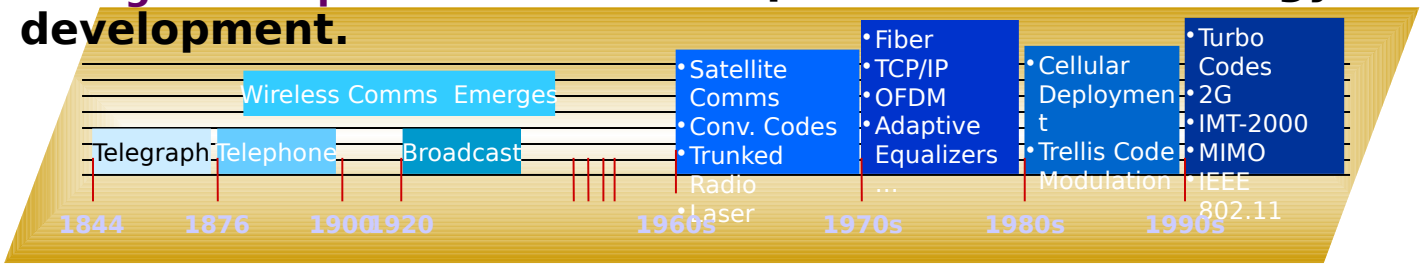
Fully operational weapons systems to conduct military operations when and where needed, and be interoperable and agile

Spectrum “Battlefield”

OPERATIONAL: Net-centric operations, more joint operations…

- Net-Centric Warfare
- Higher bandwidths
- Greater mobility
- Greater agility
- Higher tempo

TECHNICAL: Four decades of rapid wireless technology development.



- The need to access more spectrum
- Encroachment on Federal (and military) bands

REGULATORY: Increased need for more spectrum, harmonization

- Demands for sharing and harmonization
- Host nation sovereignty
- World Radiocommunication Conference (WRC) impact

JS Spectrum Mission

- **Support to Combatant Commands**
  - **Advocate for the Warfighter**
- **Spectrum Publication Updates / Reviews**
  - **Establish requirements / provide guidance**
- **Spectrum Management Tools**
  - **Aid data collection, spectrum allocation, host nation coordination, spectrum planning**
- **Joint Capabilities Integration Development System (JCIDS) Spectrum Supportability Document Review**

Role of MCEB FP

Manages 138-150.8 MHz, and 225-400 MHz Bands for DoD & NTIA
Produces Allotment Plans for DoD operations in US

Spectrum Supportability for all DoD Systems IAW DoDI 4560.01 & CJCSI 6212.01
Produces final documents used to obtain permissions for US & HN operations

SM Architectural Development & Maintenance that meets Congressional Direction to DoD CIO
Produces Spectrum Architecture

Oversight, Policy, & Management of DoD Freq Assignment Data Format & Database
Maintains MCEB PUBs 5, 7 & 8

Frequency Panel (FP)
Chair: Co-Lead, JS/JCIE Division

Permanent & Ad Hoc Working Groups (PWGs & WGs)

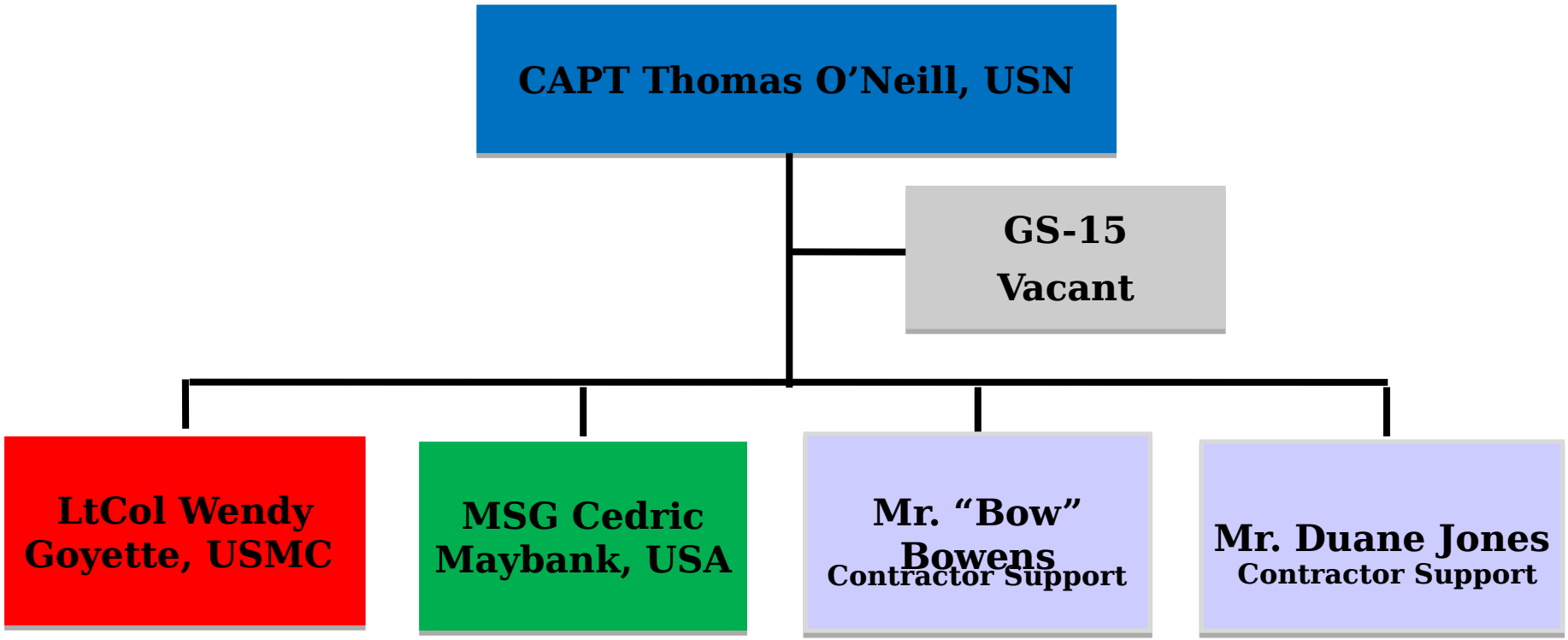
- **Allotment Plan Management (APM PWG)**
- **Equipment Spectrum Guidance (ESG PWG)**
- **International (I PWG) + NATO & CCEB Support Team**
- **Space Systems (SS PWG)**
- **Spectrum Management Architecture (SMA PWG)**
- **Spectrum Operations (SO PWG)**

- **Joint Communications-Electronics Operating Instruction (JCEOI) Ad Hoc Working Group**
  - Operational oversight of Joint CEOIs & JACS Pgm
    Publishes CJCSI 3320.03B; holds CCBs; conducts version testing to support fielding
- **DoD ITU WRC Preparation for DoD CIO; NATO & CCEB Meeting Preparation for JS/J6 Reps**
  Produces DoD WRC positions & represents DoD at WRC meetings
- **Dynamic Spectrum Access (DSA) Ad Hoc Working Group**
  - Working-level coord. with DSA & other emerging technologies
    Produces Implementation Roadmap & Tech Updates
- **Coordination & Registration of DoD Satellite Systems**
  Prepares US SATCOM orbital requests - reviews foreign requests
- **Allied Communications Publications (ACP) Ad Hoc Working Group**
  - Authorship of DoD Spec Mgt Allied Communications Publications
    Maintains ACP-190 US SUPPs 1 & 2

E3/Spectrum Supportability Mission Success

- Systems “compatible” with intended electromagnetic environment
  - Consideration of E3 early in development process
- Equipment operates in the proper frequency band
  - Early coordination with Host Nations (HN)
- User can obtain license to operate equipment (when required)
  - Coordination and HN approval accomplished pre-development
- Legal operation of equipment with no fratricide
- No program delays for failure to seek Spectrum Supportability
  - Ensures timely delivery of capabilities
- Early defect discovery in system

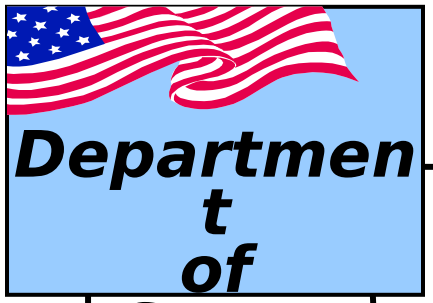
Questions?

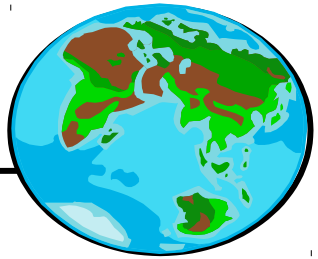


js.pentagon.j6.list.spectrum-management
Pentagon - Room 1D1057

Backup Slides

International Spectrum Management

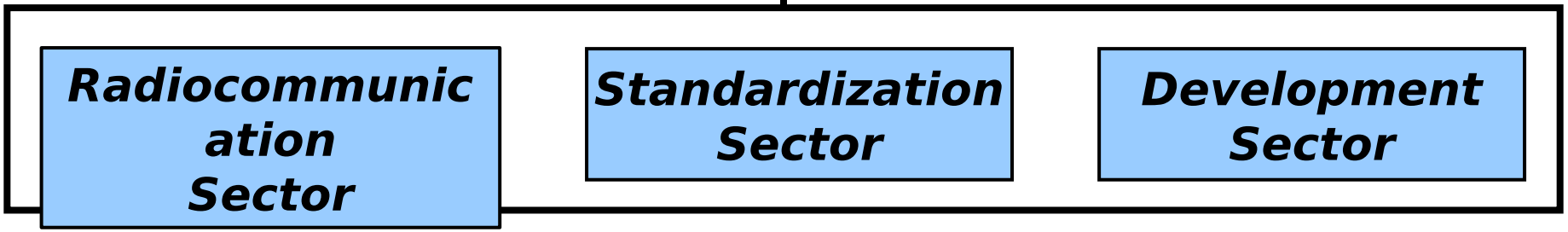




ITU Member Administrations

FCC

NTIA



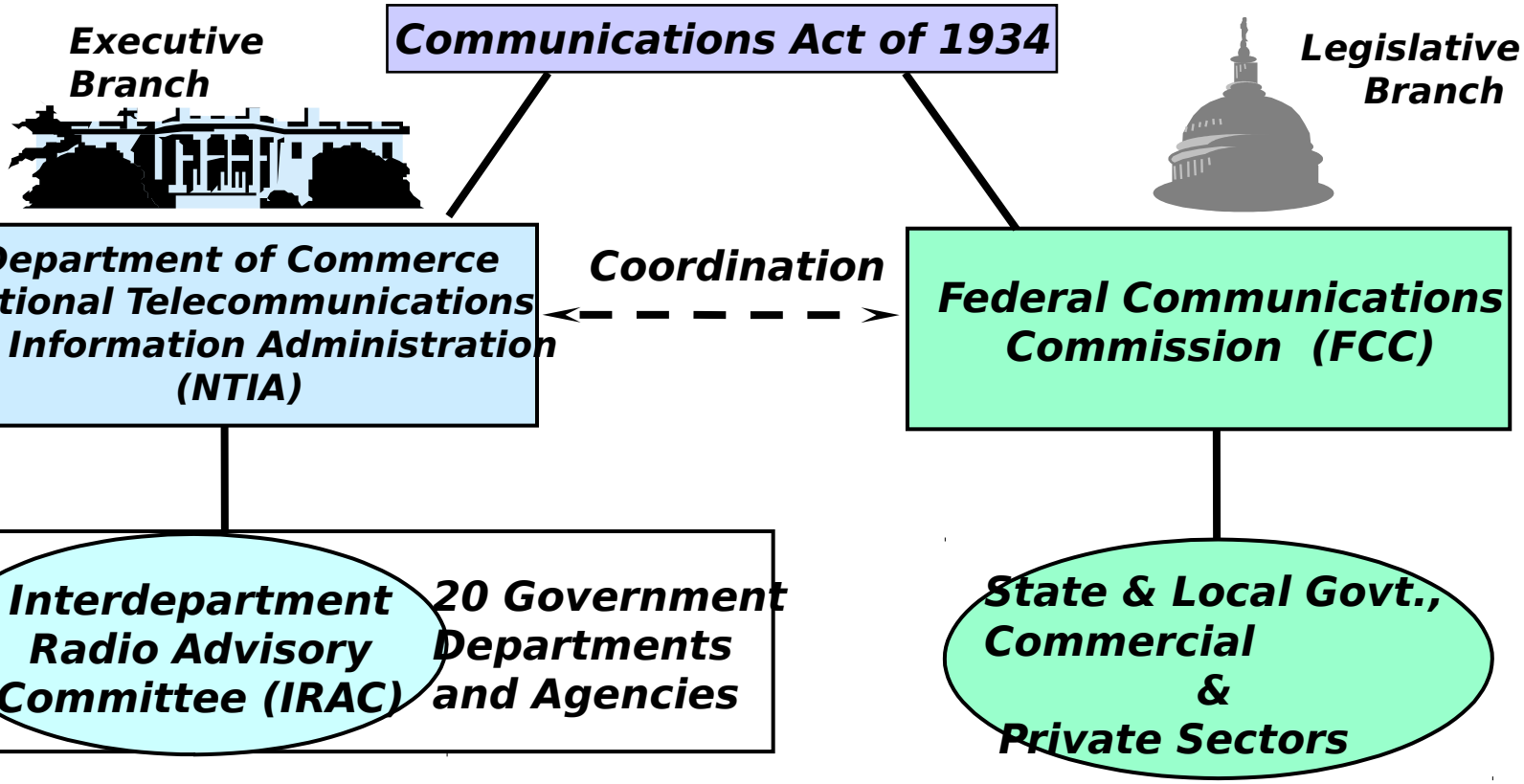
International Telecommunication Union (ITU)

- **Headquartered in Geneva Switzerland**
- **Lead UN agency for information and communication technology issues for over 145 Years:**
  - Coordinated the shared global use of the radio spectrum,
  - Promoted international cooperation in assigning satellite orbits
  - Worked to improve telecommunication infrastructure in the developing world
  - Established the worldwide standards that foster seamless interconnection of a vast range of communications systems
- **Membership:**
  - 192 Member States (sovereign governments)
  - 700 Sector Members & Associates (e.g. telecommunications carriers, equipment manufacturers,

World Radiocommunication Conference (WRC)

- Held by International Telecommunications Union (ITU)
- Amends the international Radio Regulations (RRs)
- Decisions affect how radio spectrum is used
- Decisions are binding on member nations
- Significant potential for operational impact

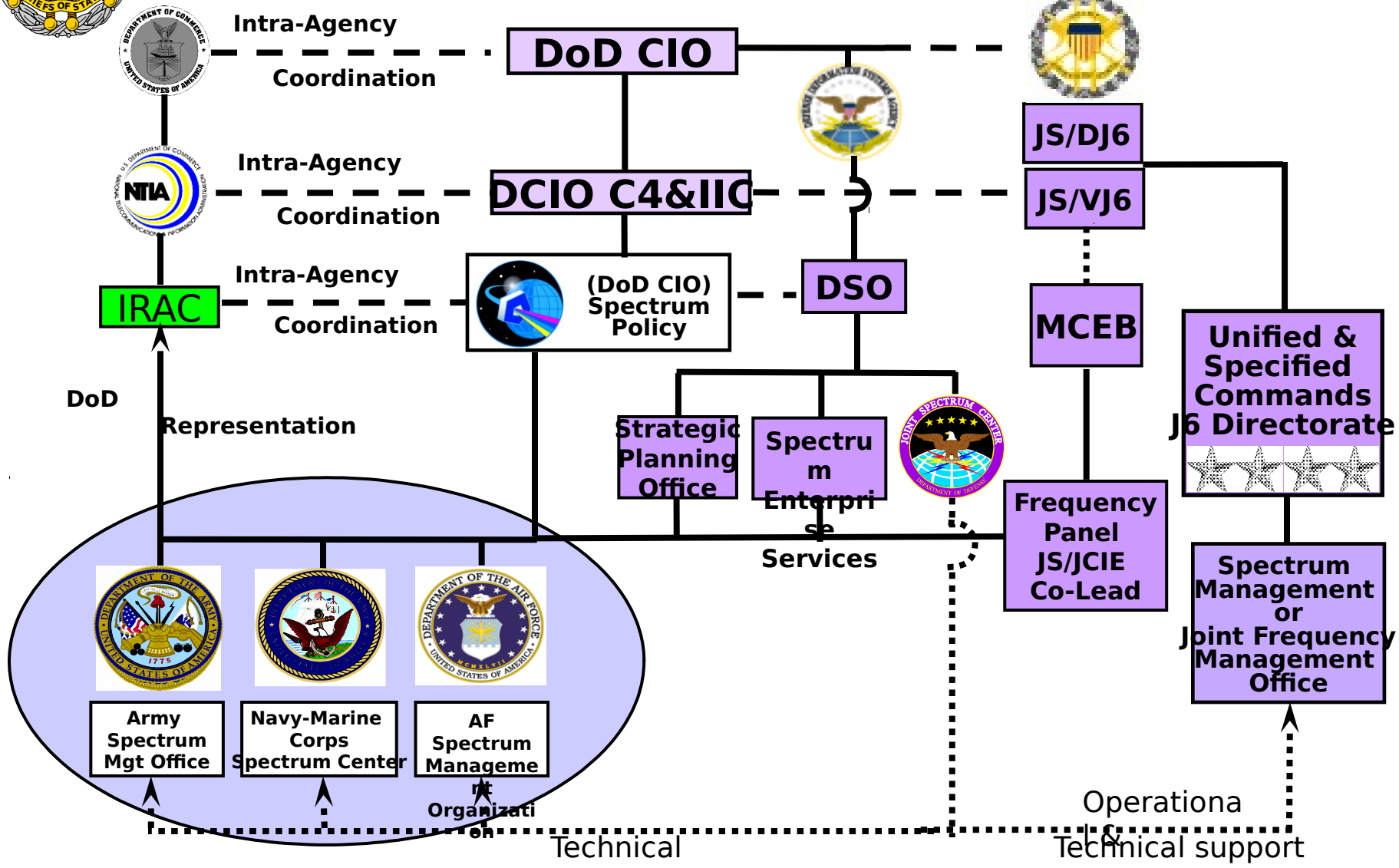
US National Spectrum Management


Executive Branch
Communications Act of 1934
Legislative Branch
Department of Commerce National Telecommunications and Information Administration (NTIA)
Coordination
Federal Communications Commission (FCC)
Interdepartment Radio Advisory Committee (IRAC)
20 Government Departments and Agencies
State & Local Govt., Commercial & Private Sectors

Defense Spectrum Management

- **Strategic spectrum management planning**
  - Spectrum planning
  - DoD requirements and policies
  - SM strategic plans
- **Capabilities development and acquisition**
  - Equipment spectrum certification
  - Host Nation coordination/approval
  - Electromagnetic compatibility analysis
- **Spectrum management operations**
  - Frequency assignments
  - Electromagnetic interference analysis and resolution

DoD Spectrum Management



As of 2013-08-15

Frequency Panel

- **Frequency Panel Structure Chartered by MCEB Pub 1 – mirrors MCEB (MCEB currently working on new Terms of Reference)**
- **Consists of 8 subordinate Permanent Working Groups (PWGs) and two Ad-Hoc Working Groups**
  - **Organized by subject matter or specific issue**
  - **FP Chaired by J65 Dep Div Chief; PWGs Chaired by Volunteers from Service or Defense Agency Spectrum Management Offices (SMOs)**
- **Forum brings Stakeholders and Subject Matter Experts together**
  - **Membership: Army, Navy, Air Force, Marine Corps, Coast Guard, J65A (COCOMs), DISA DSO, NSA, & ASD(NII)-Spectrum (1)**
  - **Observers (1): DISA JSC, MDA, DON CIO, others by request**